Lead Editorial

Sustainability: Why should we care?

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In 1826 John James Audubon, famed naturalist and wildlife painter, wrote of his beloved America: 'Neither this little stream, this swamp, this grand sheet of flowing water, nor these mountains will be seen in a century hence as I see them now. Nature will have been robbed of her brilliant charms … the hills will be leveled … fishes will no longer bask on the surface … and these millions of songsters will be [driven] away by man' (Rhodes, 2004: 280).

Jack Reardon argues that achieving sustainability does not entail subsistence lifestyles or forsaking technological developments. Rather, it requires a holistic perspective, an awareness of the inequities between present and future and a fundamental change in values.

Of course, Audubon was not the first to contemplate the effects of present behaviour on future generations. The Iroquois Confederacy, for example, believed that: 'Our every deliberation … must consider the impact of our decisions on the next seven generations' (Baue, 2007:1). And the cultures of many pre-Columbian peoples, 'evolved over thousands of years largely in symbiosis of the Earth that sustained it. Often these customs were incorporated into religious ritual beliefs that held the Earth to be the sustainer of all things and linked the welfare of the Earth to the survival of the people who lived upon it.' (Grinde and Johansen, 1995: 52).

Concern for inter-generational equity is the quintessence of sustainability. Sustainable practices, whether in agriculture, energy or land use, meet the needs of the present without jeopardising the ability of future generations to meet their needs. Sustainability links past, present and future within the limits of the Earth's sustenance, requiring knowledge, foresight and an ethical concern for the well-being of others. In addition, sustainability requires proactive rather than passive behaviour.

But why should we be concerned with inter-generational equity? Is concern for the future hard-wired into the human brain? Is there

an ethical bond with future generations that compels us to act sustainably? Perhaps so, if we recognise that future generations 'are not only without a voice, without votes in the present, but … downstream (in time) and therefore vulnerable to [our] harmful effects… they are …both powerless and vulnerable.' (Streeten, 1998: 256).

Yet many societies have perished because of lack of environmental concern and/or exhaustion of resources, which offers an important lesson: 'In civilized life, as well as in plant and animal life, organism and environment continuously transform each other as a result of their mutual relationships… the choices made by living things exert a directive influence that guides the organism's environmental system into channels from which there is hardly ever any retreat, and that imposes a pattern on the development of both.' (Dubos, 2003: 124).

Travelling along the Ohio River in November 1829, Audubon wrote: 'This grand portion of our Union, instead of being in a state of nature, is now more or less covered with villages, farms and towns, where the din of hammers and machinery is constantly heard…whether or not these changes are for the better or for the worse, I shall not pretend to say.' (Rhodes 2004: 337). But for most Americans the 'din of hammers and machinery' meant growth – the *sine qua non* of prosperity. And the acceptance of uninhibited growth across the ideological spectrum easily became 'the most important idea of the twentieth century' (McNeil, 2000: 336).

Given the dismal environmental record of the most prosperous nations and deteriorating ecological conditions, in 1982 the United Nations World Commission on Environment and Development – also known as the Brundtland Commission – investigated the compatibility of growth and sustainability. The Commission reported: 'Sustainable development, which implies meeting the needs of the present without compromising the ability of future generations to meet their own needs, should become a central guiding principle of the United Nations, Governments and private institutions, organizations and enterprises.' (UN 1987). But, the Commission also wrote, as if to invite controversy, we 'emphasize the need for a new approach to economic growth, as an essential prerequisite for eradication of poverty and for enhancing the resource base on which present and future generations depend.' (UN 1987).

Combining the two passages, the Commission advocated the right of developing nations to the living standards of the North, to be achieved by economic growth. But the Earth simply does not have enough resources: 'If every one in the world consumed at the same rate as the US average, over five planets would be required.' (Chong 2006, 111).

Since the Commission's Report, one is hard-pressed to find any large-scale sustainable development. Economic growth has taken precedence over sustainable development with devastating consequences. If we continue business as usual not only will global warming worsen, but we could reach a tipping point where the characteristics of new ecological systems are radically and irrevocably different from the old.

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Global warming will create 50 million environmental refugees by 2050. It is also estimated that by 2050, if greenhouse emissions continue at their present rate, 15–37 percent of all animals and plants will be threatened with extinction (Shearman and Smith 2007, 62). Yet, in the United States, the Bush Administration has refused ameliorative action, instead prioritising domestic jobs. And China, determined to emulate western living standards, surpassed the United States in 2007 as the largest greenhouse gas emitter.

Sustainable development is only one among hundreds of definitions of sustainability (Pearce and Walrath), evidence of both its popularity and widespread applicability. Nevertheless, each definition incorporates the wisdom of the past into proactive policies in order to ensure the survivability of future generations. In a provocative book, Colin Tudge (2007) discusses the current unsustainabilty in agriculture resulting in soil erosion, deforestation, polluted water, etc. If, however, sustainable methods are adopted, closely tailored to local geographic conditions and utilising the accumulated wisdom of the past, rather than disparaging it as primitive, we can successfully feed the additional four billion people expected by 2050.

Sustainability does not entail zero economic growth nor subsistence lifestyles. Sustainability does not imply that present consumption should be sacrificed, nor that we should forsake technological developments. Rather, sustainability requires awareness

of consequences on future generations and requires using the Precautionary Principle. Sifting through a plethora of definitions (Sunstein, 2005) the essence of the Principle is, 'When an activity raises threats of harm to human health or the environment, precautionary measures should be undertaken even if some cause and effect relationships are not fully established scientifically.'

Sustainability should not lock-in developing nations to low living standards; rather sustainability should proactively achieve intra-generational and inter-generational equity. Yes, this is a formidable task, but necessary since we are reaching a tipping point for global poverty and social equity (Allen, 2007: 72). With two billion people living on less than a dollar a day, global inequality at its greatest point in history and global warming disproportionately affecting the poor, we cannot continue our present course.

Sustainability requires consultation, dialogue and collaboration between developing and developed nations: 'The globalization we need is not foremost that of markets. It is that of open communication and community creation. This calls for agency. This calls for the creation of institutions not seen before that match the problems we face' (Vant, 2005: 434). Also required is delineation of the rights of future generations since 'even if sustainable development were to be truly implemented, the rights for future generations would not be guaranteed unless … made explicit.' (Chong, 2006: 107).

Two formidable obstacles currently prevent and discourage the implementation of sustainable practices. One, the preponderant acceptance of economic growth, abetted by neoclassical economics, currently the most influential school within economics. In a book consolidating recent neoclassical research, the author writes unambiguously: 'The cure for poverty is economic growth… so the question about causes and cures for poverty is a question about what causes economic growth, or explains its failure.' (Coyle, 2007: 72). This is equally true for developing nations: 'Conventional economic growth is without question desirable. There is no doubt that the vast majority of the people in the world will be made happier by increases in GDP per capita.' (ibid, 118).

This statement underscores the failure of neoclassical economics to incorporate the findings of science – which shape the permissible contour of economic behavior – into policy prescriptions. The 19th century founders of neoclassical economics

'thought, wrote, and prescribed as if nature did not' (McNeil, 2000: 335). Neoclassical economics continues to offer policy as if we lived in an 'empty land [with] shoals of undisturbed fish, vast forests and a robust ozone shield.' (McNeil 2000: 336).

The second obstacle is the current version of liberal democracies. The Brundtland Report assumed government leaders would judiciously choose an optimal mix of growth and environmental stewardship. But Shearman and Smith (2007) argue that liberal democracies, influenced by corporatism and motivated by individual self-interest, contravene sustainability since profit takes precedence over ecological services, climate change and conservation. If we are to survive and solve global warming, argue Shearman and Smith, liberal democracies must be radically revised and/or replaced with a variant of totalitarianism. Nothing less will solve the escalating problem of climate change.

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Whether or not we agree, this important point deserves careful consideration, given the abysmal environmental record of liberal democracies and totalitarian regimes alike. The form of government determines how sustainability will be implemented, the influence of corporatism and whose values will be recognised and protected. But ordinary citizens can influence institutional development, as Jared Diamond notes optimistically: 'The public has the ultimate responsibility for the behavior of even the biggest business [which is both] '"empowering and hopeful"' (2005: 485).

Achieving sustainability requires a holistic perspective, an awareness of the inequities between present and future and a fundamental change in values. Education is needed at all levels to attenuate the insidious influence of neoclassical economics and 'to embed a sense of inter-generational duty as a primary social ethos.' (Chong, 2006: 116). While it is easy to lose oneself in the minutia of sustainability, it is important to communicate with each other and keep abreast of developments. This special issue of *Interconnections* will help meet these objectives.

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Section 1

Views from the ivory tower

From across the pond, Joel Magnuson provides an insightful critique of American capitalism and how its **relentless pursuit** of **growth** and profit impacts worldwide. Growth itself has become **institutionalised**, and we need to find a way forward by changing our mindsets through '**mindfulness**'. Elizabeth Garnsey, innovation expert at Cambridge University, reflects on directions for innovation, and the interrelationship between **time**, **space**, and **enterprise**.